

AN ECONOMIC APPROACH TO THE HANDLING OF WAXY CRUDE OIL PIPELINES

Amieibibama Joseph
University of Port Harcourt
NIGERIA

Joseph Atubokiki Ajenka
University of Port Harcourt
NIGERIA

ABSTRACT

In order to optimize profitability in the handling of waxy crude oil pipelines, an optimum cost of handling or an optimum flowrate for a given handling budget must be worked out. Such optimum parameters are related to the operating temperature and rheology of the crude oil. A sensitivity study was conducted to identify those parameters which limit profitability. Based on the case study, it was found that the handling cost per foot is sensitive to profit margin, fraction of oil in flowing system, energy cost of transportation, cost of chemical and operations maintenance cost in decreasing order of elasticity.

Keywords: Waxy crude, Pour-point, Oil pipeline, Economics.